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09/786,824	06/07/2001	Walter Strohbeck	10191/1739	6516

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EXAMINER

LINNENKAMP, NICHOLAS L

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 12/24/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/786,824

Applicant(s)

STROHBECK, WALTER

Examiner

Nicholas L Linnenkamp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 30-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because the figures contain only boxes of which the applicant has failed to label. In order to quickly and properly determine what the drawing is referencing, a suitable drawing clearly labeling the components is required. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The examiner objects to the abstract because the disclosure is too long. Please review the abstract and have it conform to the above requirements.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 59 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a security system that has one identification number per key, does not reasonably provide enablement for a security system that either has multiple identification numbers per key or the ability to transmit another key's identification number. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. The security system disclosed in claim 59 is noted to have a key that has an (**or one**) identification number, and an electronic control unit (ECU) both of which are enabled by the specification. The specification does not support the action of the ECU entering a validation mode causing the keys located in the broadcast range to transmit another identification number, since it is not clear where the other identification number originates (either the key itself or a nearby key) and thus it is not enabled in the specification. Additionally, setting of the enabling information message of the another identification number also is not enabled for similar reasons.

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The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 59 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 59 recites the limitation "another" in reference to identification numbers in line 12 of claim 59. There is insufficient antecedent basis for this limitation in the claim. Although applicant speaks of an identification number in the claim, the specification and the claim do not provide for the ability to discern what the other identification number is for (second identification number lacks purpose) or who is providing it (either the key itself or a key nearby).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30-38, 40-45, 47-52, and 54-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Hirozawa et al. (heretofore Hirozawa, EP 0695675 A1).

In reference to claim 30, Hirozawa provides a method for key verification for use with a security system (Abstract), the security system including at least one valid key (1)

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and an electronic verification arrangement having a transceiver for communicating with the key (2,3), the electronic verification arrangement (2, 3, 7, 8) storing unique identification data for the key and storing enable data corresponding to the unique identification data for the key (5, 6, 10, 11 store the enabling identification data), the electronic verification arrangement generating an authority for accessing a secured object (4, 9) when authentication data is received from the key (1), the method comprising the steps of;

- Accessing the unique identification data for the key in a mode of the security system (Col 14, lines 5-11).
- Performing a predetermined procedure to enter a key validation mode of the security system the step of performing the predetermined procedure being performed by a user of the security system (Col 14, lines 12-16).
- Retaining enable data for each of the keys within a transceiver range in the key validation mode (Col 14, lines 16-18, transceiver range is defined by the area very close to the ignition).
- Deleting other enable data for each of the keys outside the transceiver range in the key validation mode (Col 14, lines 16-18).
- Deactivating each of the keys for which the other enable data is deleted in the step of deleting (Col 14, lines 16-18).

In reference to claim 31, claim 30 is taught as above. Hirozawa teaches that the predetermined procedure includes a vehicle starting procedure (Col 14, lines 12-16).

In reference to claim 32, claim 30 is taught as above. Hirozawa teaches that the predetermined procedure includes a vehicle access procedure (Col 14, lines 11-14). The deactivation of the immobilizer unit is seen a vehicle access procedure. In addition, vehicle-starting procedure is also seen as a vehicle access procedure.

In reference to claim 33, claim 30 is taught as above. Hirozawa teaches that the predetermined procedure includes a standard vehicle procedure using a standard vehicle control. Claim 33 is taught as claim 31 above. The ignition switch is seen as a standard vehicle control, which would be used in a standard vehicle procedure.

In reference to claim 34, claim 33 is taught as above. Hirozawa teaches that the standard vehicle control includes an ignition switch. Claim 34 is taught as claim 31 above.

In reference to claim 35, claim 33 is taught as above. Hirozawa teaches that the predetermined procedure includes a vehicle starting procedure, the steps of the starting procedure are performed at different times than times for performing the standard vehicle procedure (Col 14, lines 11-16, car ignition is turned on off not to drive but to initiate key verification sequence).

In reference to claim 36, claim 30 is taught as above. Hirozawa teaches that indication of completion of key validation code is performed by not placing another key in the keyhole in a predetermined amount of time of about 4 seconds (Col 14, lines 18-21).

In reference to claim 37, claim 30 is taught as above. Hirozawa teaches that a display is generated for an activated valid key of the security system to indicate

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completion of validation by turning on interior lights through the use of an indicator (16).  
(Col 8, lines 21-26).

In reference to claim 38, claim 30 is taught as above. Hirozawa teaches that the keys used for disarming the security system do not have activating buttons. It is clear that Hirozawa, when speaking of keys, is talking of a lock-opening device such as a key for a tumbler lock (although not a said specific limitation) with a transponder attached to the device (Col 2, lines 27-31).

In reference to claim 40, claim 30 is taught as above. Hirozawa teaches that the authority (immobilizer (4), EGI (9)) allows access to the secured object (vehicle).

In reference to claim 41, claim 40 is taught as above. Hirozawa teaches that the secured object is a vehicle (Abstract).

In reference to claim 42, claim 30 is taught as above. Hirozawa teaches that the secured object is a vehicle and the authority allows operation of the vehicle (immobilizer (4), EGI (9) control operation of the vehicle).

In reference to claim 43, claim 42 is taught as above. Hirozawa teaches that included in operation of the vehicle is starting the vehicle (Col 2, lines 26-31).

In reference to claim 44, Hirozawa teaches of a security system that comprises

- At least one valid key (1)
- An electronic verification arrangement including a transceiver for communicating with at least one valid key and including a mode for accessing unique identification data (transponder (1) communicates with immobilizer and EGI unit (4, 9) through antenna (2) to access unique



identification data) wherein the electronic verification arrangement is operable to

- Store the unique identification data for at least one valid key (memory 5, 6, 10, 11)
- Generate an authority for accessing a secured object when authentication data is received from a valid key (ignition power, IG1 is controlled through immobilizer and EGI unit)
- Store enable data in accordance with the unique identification data for each activated one of the valid keys (memory 5, 6, 10, 11)
- Enter a key validation mode when a user performs a predetermined procedure (Col 2, lines 27-31)
- Retain enable data for each of the valid keys within a transceiver range in the key validation mode (Col 14, lines 16-18, transceiver range is defined by the area very close to the ignition)
- Delete other enable data for each of the valid keys outside the transceiver range in the key validation mode (Col 14, lines 16-18)

In reference to claim 45, claim 44 is taught as above. Claim 45 is taught as claim 31 above.

In reference to claim 47, claim 44 is taught as above. Claim 47 is taught as claim 33 above.

In reference to claim 48, claim 47 is taught as above. Claim 48 is taught as claim 34 above.

In reference to claim 49, claim 47 is taught as above. Claim 49 is taught as claim 35 above.

In reference to claim 50, claim 44 is taught as above. Claim 50 is taught as claim 36 above.

In reference to claim 51, claim 44 is taught as above. Claim 51 is taught as claim 37 above.

In reference to claim 52, claim 44 is taught as above. Claim 52 is taught as claim 38 above.

In reference to claim 54, claim 44 is taught as above. Claim 54 is taught as claim 40 above.

In reference to claim 55, claim 54 is taught as above. Claim 55 is taught as claim 41 above.

In reference to claim 56, claim 44 is taught as above. Claim 56 is taught as claim 42 above.

In reference to claim 57, claim 56 is taught as above. Claim 57 is taught as claim 43 above.

In reference to claim 58, Hirozawa teaches of an anti-vehicle-thief apparatus (Title) thus intended use is for a vehicle. Additional limitations of claim 58 taught as in claim 44 above.

Thus, Hirozawa teaches all the limitations of claims 30-38, 40-45, 47-52, and 54-58.

Claim 44 and 46 is rejected under 35 U.S.C. 102(b) as being anticipated by Castleman.

In reference to claim 44, Castleman teaches of a security system comprising

- At least one valid key (20)
- An electronic verification arrangement including a transceiver (21) for communicating with at least one valid key (20) and including a mode for accessing unique identification data (Mode activated upon insertion of the key into transceiver 21) herein the electronic verification arrangement is operable to
  - o Store the unique identification data for at least one valid key (12)
  - o Generate an authority for accessing a secured object when authentication data is received from a valid key (14,16)
  - o Store enable data in accordance with the unique identification data for each activated one of the valid keys (EEPROM 32)
  - o Enter a key validation mode when a user performs a predetermined procedure (Insertion of a master key into lock, Col 10, lines 1-15)
  - o Retain enable data for each of the valid keys within a transceiver range in the key validation mode (enable data is retained for valid keys, Col 10, lines 1-15)

- Delete other enable data for each of the valid keys outside the transceiver range in the key validation mode (Deletion of all keys, Col 10, lines 64-67).

In reference to Claim 46, claim 44 is taught as above. Castleman describes a procedure for entering the key validation sequence, which comprises placing a master key into the locking mechanism, of which the procedure is also used for unlocking a door (Fig 1 shows door setting, Col 10, lines 1-15 describe validation sequence). Castleman also teaches that his invention be used in different settings including that of a vehicle (Abstract).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 39 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirozawa.

In reference to claim 39, claim 30 is taught as above. Hirozawa remains silent as to security code access procedure including the storing of enable data for the unique identification data. It would have been obvious to one skilled in the art at the time of invention to transmit enable data (control information) between the key and the verification unit in order to protect the secrecy of the unique identification number stored on the key. Transmission of enable data (control code) that has been encrypted by a numeric algorithm using the identification number as a seed when both sender and receiver know the seed is a typical in the industry and considered a "safe" access procedure as the identification number is not sent and thus cannot be replicated. Such rolling code sequences are considered enabling data since only the key and transmitter know the next such "enabling" code number. Choosing enable data to consist of only one byte (8 bits) rather than a smaller or larger number of bits would have been within the design choice of the security of the encrypting code.

In reference to claim 53, claim 44 is taught as above. Claim 53 is taught as claim 39 above.

Thus, it would have been obvious to one skilled in the art at the time of invention to combine the teachings of Hirozawa with that of known prior art to transmit a control byte or bytes as necessary to implement a secure rolling code algorithm.

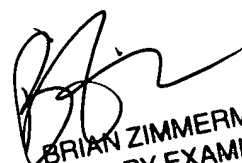
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas L Linnenkamp whose telephone number is (703) 305-8701. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (703) 305-4704. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

Nicholas L Linnenkamp  
Examiner  
Art Unit 2635

NLL

  
BRIAN ZIMMERMAN  
PRIMARY EXAMINER